Remarks/Arguments

In the Final Office Action, Claims 1, 2, 4, 9, 10, 11, 12, 13, 14 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Hartung et al., U.S. Patent No. 5,920,709 (hereinafter "*Hartung*"). Claims 5, 6, 7, 8, 16, 17, 18 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Hartung* and further in view of Nakamura, U.S. Patent No. 7,046,519 (hereinafter "*Nakamura*").

By this amendment, Claims 2, 5, 16, and 21 have been cancelled. Claims 1, 6, 7, 14, 17, 18, and 19 have also been amended. Following entry of this amendment, claims 1, 4, 6-14, and 17-19 will be pending in the present application. For the reasons set forth below, the applicants respectfully request reconsideration and immediate allowance of this application.

Claim Rejections Under 35 U.S.C. §102(b) and §103(c)

In the Final Office Action, claims 1, 2, 4, 9, 10, 11, 12, 13, 14 and 19 were rejected under 35 U.S.C. 102(b) as being anticipated by *Hartung*. In the Final Office Action, claims 5, 6, 7, 8, 16, 17, 18 and 21 were rejected under 35 U.S.C. 103(a) as being unpatentable over *Hartung* and further in view of *Nakamura*, U.S. Patent No. 7,046,519.

Claim 1

Claim 1 recites, *inter alia*, "upon the data read from the status register destination not having the first predefined value, returning that the IDE drive is connected to the intelligent drive electronics channel." Regarding the above recited portion of claim 1, the Final Office Action relies on *Hartung* at col. 11, lines 42-45, which discloses that "[i]f nest driver 230 sees a string of hexadecimal 'F' values on any of IDE buses 63, nest driver 230 realizes that no device is connected to such bus 63." However, any hexadecimal 'F' values on the bus are returned from the CommandReg register, which the Final Office Action previously alleges anticipates the claimed "drive head register destination." The Final Action does not distinguish between the claimed "drive head register destination" and the "status register destination" as they are recited in claim 1. For example, claim 1 recites that "in response to the data read from the drive head register destination matching the data written to the drive head register destination, reading the status register destination." *Nakamura* does not cure the deficiencies of *Hartung*. As such,

neither *Hartung* nor *Nakamura*, alone or in combination, teaches or suggests "upon the data read from the status register destination not having the first predefined value, returning that the IDE drive is connected to the intelligent drive electronics channel," as recited in claim 1.

Claim 1 further recites, *inter alia*, "in response the data read from cylinder low register destination and the cylinder high register destination matching the predefined signature, returning that the IDE drive is connected to the intelligent drive electronics channel." The Final Office Action relies on *Hartung* in view of *Nakamura*, which generically teaches the existence of a cylinder low register and a cylinder high register. However, neither *Hartung* nor *Nakamura*, alone or in combination teaches or suggests reading data from the cylinder low register and the cylinder high register, and comparing the data with a predefined signature to determine whether an IDE drive is connected to the intelligent drive electronics channel, as essentially recited in claim 1. As such, neither *Hartung* nor *Nakamura*, alone or in combination, teaches or suggests "in response the data read from cylinder low register destination and the cylinder high register destination matching the predefined signature, returning that the IDE drive is connected to the intelligent drive electronics channel."

The Advisory Action also contends that "[t]he value read from the register and output on the bus is not matched against the 'signature', but rather the signature is created following the matching of the read values to indicate whether an IDE device is connected or not." However, whether the value output on the bus is the signature or whether the value output on the bus is compared with a signature is irrelevant. In either case, the value output on the bus is compared to a known value, such as hexadecimal "EB14," to indicate whether an IDE/ATAPI device is connected to the bus.

That said, no where in *Hartung* is the data written into the CommandReg register compared with the data read from the CommandReg register. *Hartung* at col. 11, lines 34-37 discloses that "[i]ssuance of a command occurs by nest driver 230 causes a particular one of a set of command values to be loaded into the CommandReg register 78K of image file 76 of FIG. 6." It is important to note that this is the only mention in *Hartung* regarding any data that is "loaded" to the CommandReg register. Upon the "one of a set of command values" being loaded into the CommandReg register, *Hartung* at col. 11, lines 40-42 discloses that "nest driver 230 examines returned values on each of IDE buses 60A-60D to determine whether a 'signature' indicative of an IDE device has been returned." *Hartung* makes no mention that the "returned values"

returned from the CommandReg register are compared with the data loaded to the CommandRegister (i.e., "one of a set of command values"). As such, *Hartung* does not teach or suggest "reading the drive head register destination; [and] detecting whether the data read from the drive head register destination matches the data written to the drive head register destination," as recited in claim 1.

Accordingly, *Hartung* and *Nakamura*, alone or in combination, do not teach, suggest, or describe each and every element of independent claim 1. The applicants therefore submit that this claim is in condition for immediate allowance. The applicants further submit that claims 4 and 6-13 are also patentable because they contain recitations not taught by *Hartung* and *Nakamura*, and because these claims depend from allowable independent claim 1. Accordingly, the applicants submit that claims 1, 4, and 6-13 are in condition for immediate allowance.

Claim 14

Claim 14 recites, *inter alia*, "control logic comprising computer readable program code means for causing the computer to...detect whether data read from the cylinder low register destination and the cylinder high register destination matches a predefined signature; and in response to the data read from cylinder low register destination and the cylinder high register destination matching the predefined signature, return the second indication that the IDE drive is connected to the intelligent drive electronics channel." Regarding the recited portion of claim 14, the Final Office Action relies on *Hartung* in view of *Nakamura*, which makes only a brief mention of the cylinder low register and the cylinder high register. Neither *Hartung* nor *Nakamura*, alone or in combination, describe utilizing data stored in the cylinder low register or the cylinder high register in any manner, much less for determining whether the IDE drive is connected to the intelligent drive electronics channel, as essentially recited in claim 14.

Accordingly, *Hartung* and *Nakamura*, alone or in combination, do not teach, suggest, or describe each and every element of independent claim 14. The applicants therefore submit that this claim is in condition for immediate allowance. The applicants further submit that claims 16-18 are also patentable because they contain recitations not taught by *Hartung* and *Nakamura*, and because these claims depend from allowable independent claim 14. Accordingly, the applicants submit that claims 14 and 17-18 are in condition for immediate allowance.

Claim 19

Claim 19 recites, *inter alia*, "a basic input/output system program capable of being executed on the processor and, when executed on the processor, operative to…in response to the data read from cylinder low register destination and the cylinder high register destination matching the predefined signature, return the second indication that the IDE drive is connected to the intelligent drive electronics channel." Regarding the recited portion of claim 19, the Final Office Action relies on *Hartung* in view of *Nakamura*, which makes only a brief mention of the cylinder low register and the cylinder high register in relation to a small card adaptor. Neither *Hartung* nor *Nakamura*, alone or in combination, describe matching the data read from the cylinder low register or the cylinder high register and comparing the data to a predefined signature to determine whether the IDE drive is connected to the intelligent drive electronics channel, as essentially recited in claim 19.

Accordingly, *Hartung* does not teach, suggest, or describe each and every element of independent claim 19. The applicants therefore submit that this claim is in condition for immediate allowance. Accordingly, the applicants submit that claim 19 is in condition for immediate allowance.

Conclusion

In view of the foregoing amendment and remarks, the applicants respectfully submit that all of the pending claims in the present application are in condition for allowance. Reconsideration and reexamination of the application and allowance of the claims at an early date is solicited. If the Examiner has any questions or comments concerning this matter, the Examiner is invited to contact the applicants' undersigned attorney at the number below.

Respectfully submitted,

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